NAVY AIR FORCE INTERFACE (NAFI)

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Agenda

- Background
- Current Statistics
- Network Testing
- NAFI Help Desk
- Current NAFI Resources
- Recent NAFI Issues
- Future Enhancements

Background

- DFAS EDA began in 1995
- NAFI-production in Nov 98
- USAF decided to partner with Navy-Spring 99
- IPT is CCB-determines requirements and sets priorities

Current Statistics

Database Server Statistics Week Ending	15-Dec-00	22-Dec-00	29-Dec-00	5-Jan-01	12-Jan-01	19-Jan-01	26-Jan-01	2-Feb-01
Average number of files uploaded per day								
Air Force	381	460	226	272	484	459.2	342.6	263.6
Navy	694	595	400	561	763	564.2	904.6	763.4
Air Force & Navy	1075	1056	626	833	1247	1023.4	1247.2	1027
Average Upload Time(Seconds)								
Air Force	1.93	1.92	1.94	7.79	1.21	1.02	1.42	2.15
Navy	12.87	14.17	9.53	10.51	19.41	16.06	13.84	15.16
Air Force & Navy	14.80	16.09	11.47	18.29	20.63	17.08	15.25	17.30

Web Site Statistics (Provided by Webtrends) Week Ending	15-Dec-00	22-Dec-00	29-Dec-00	5-Jan-01	12-Jan-01	19-Jan-01	26-Jan-01	2-Feb-01
	3.3	3.3	3.3					
Average User Session length (minutes)	28.58	28.37	28.36	28.46	28.48	17.09	15.38	14.42
Total Files Downloaded								
Air Force	4578	4475	3230	3933	4932			
Navy	10326	9485	5475	8810	11799			
Air Force & Navy	14904	13960	8705	12743	16731	0	0	0
Web Pages Accessed Via DISA Site				1364	1768	962	1794	1684
	1315	1381	769					
Activity level by day(User Sessions)								
Monday	1366	1146	58	31	1660	1	1829	1844
Tuesday	1383	1425	432	1182	1666	198	1755	1839
Wednesday	1351	1611	972	1471	1791	707	1762	1784
Thursday	1525	1307	1003	1583	1654	446	1828	1759
Friday	1061	677	514	1187	833	1122	1474	273
Average number of daily user sessions (Week)	1337	1233	596	1091	1521	495	1730	1500

% User Support Requests Resolved with Initial Contact

4%

96%

- ■ Issue Resolved on Initial Contact
- ■ Issue not Resolved on Initial Contact
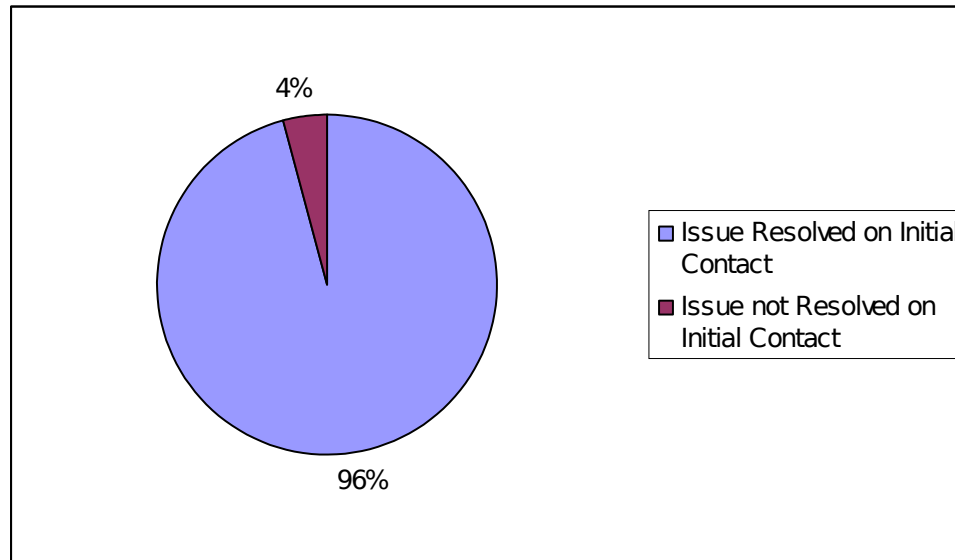
Network Testing/ASP TimeOut Error

- Suspect that network may be a contributing factor in the ASP/Time Out Error, however also scrutinizing NAFI application to optimize internal transactions
- Began network monitoring discussions with DISA and DFAS week of Jan.8 and installed sniffers Jan. 12
- Began daily network monitoring with DISA/DFAS week of Jan. 15 and continues through present
- Sniffers and endpoint software installed within NAFI and along Network leading to NAFI

  - Sniffers monitor actual traffic to and from NAFI

  - Endpoints simulate transactions and measures throughput

Network Testing/ASP TimeOut Error

- Network Monitoring/Testing Results to Date
  - DFAS-Ogden connection was a large bottleneck/traffic redirected from San Diego point to Belvoir Core
  - Noticed severe packet loss along the network before NAFI
  - Isolated NAFI incoming traffic through one T1 line instead of the normal three T1 lines that are used. This had no impact on system performance. The standard incoming throughput is 50% of one T1's line capability
  - Currently results are inconclusive and monitoring /testing will continue
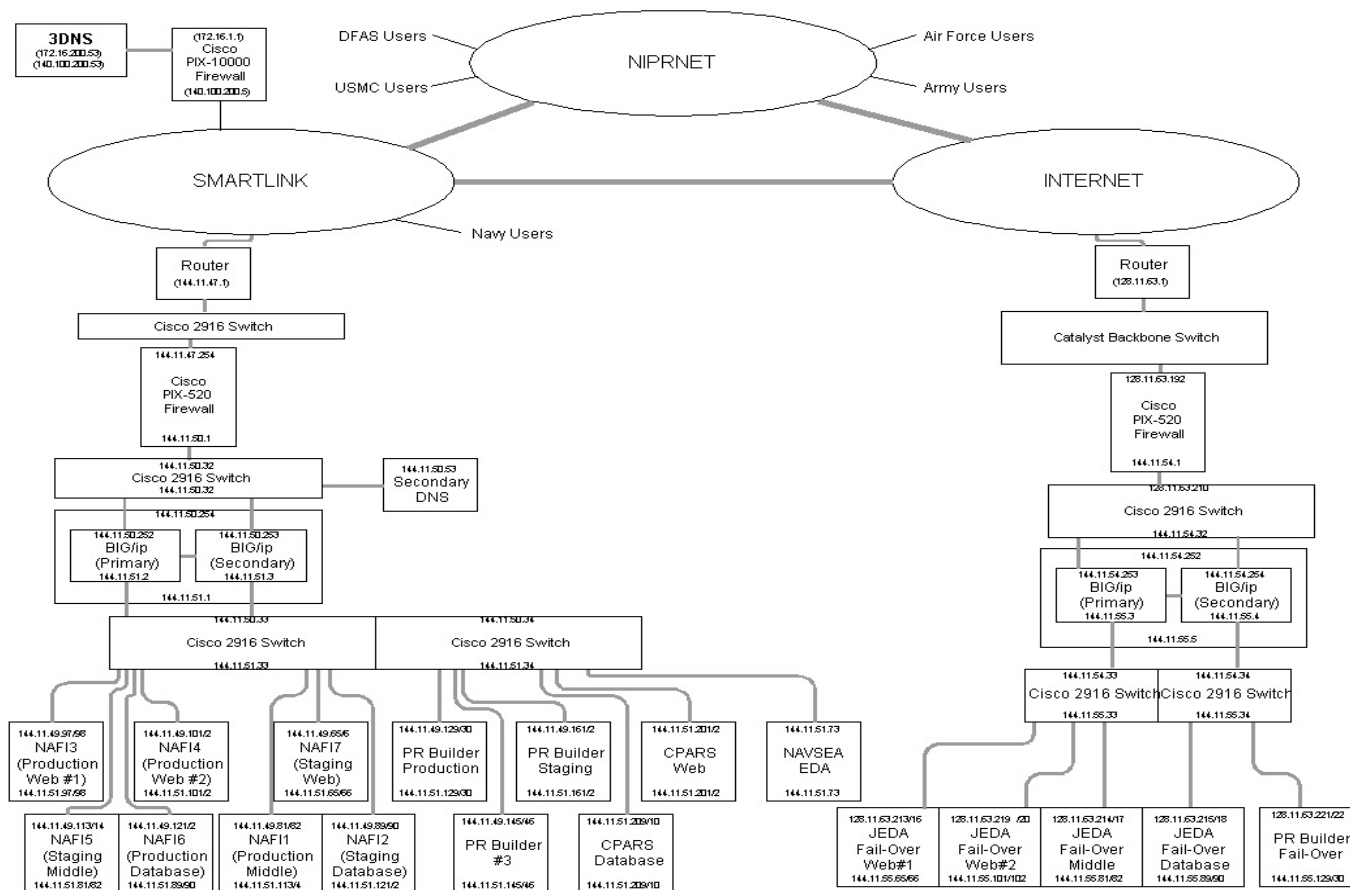
Network Testing/ASP TimeOut Error

- NAFI Internal Performance Optimization
  - Implemented database indexing on 1/19
  - Implemented MTS Server.create Objects with release of NAFI v.4.0
  - Modified encryption so that PERL runs in process. This initiates a more efficient interaction between PERL and Microsoft Technologies
  - Implemented additional changes 2/14; only 5 contacts since that time
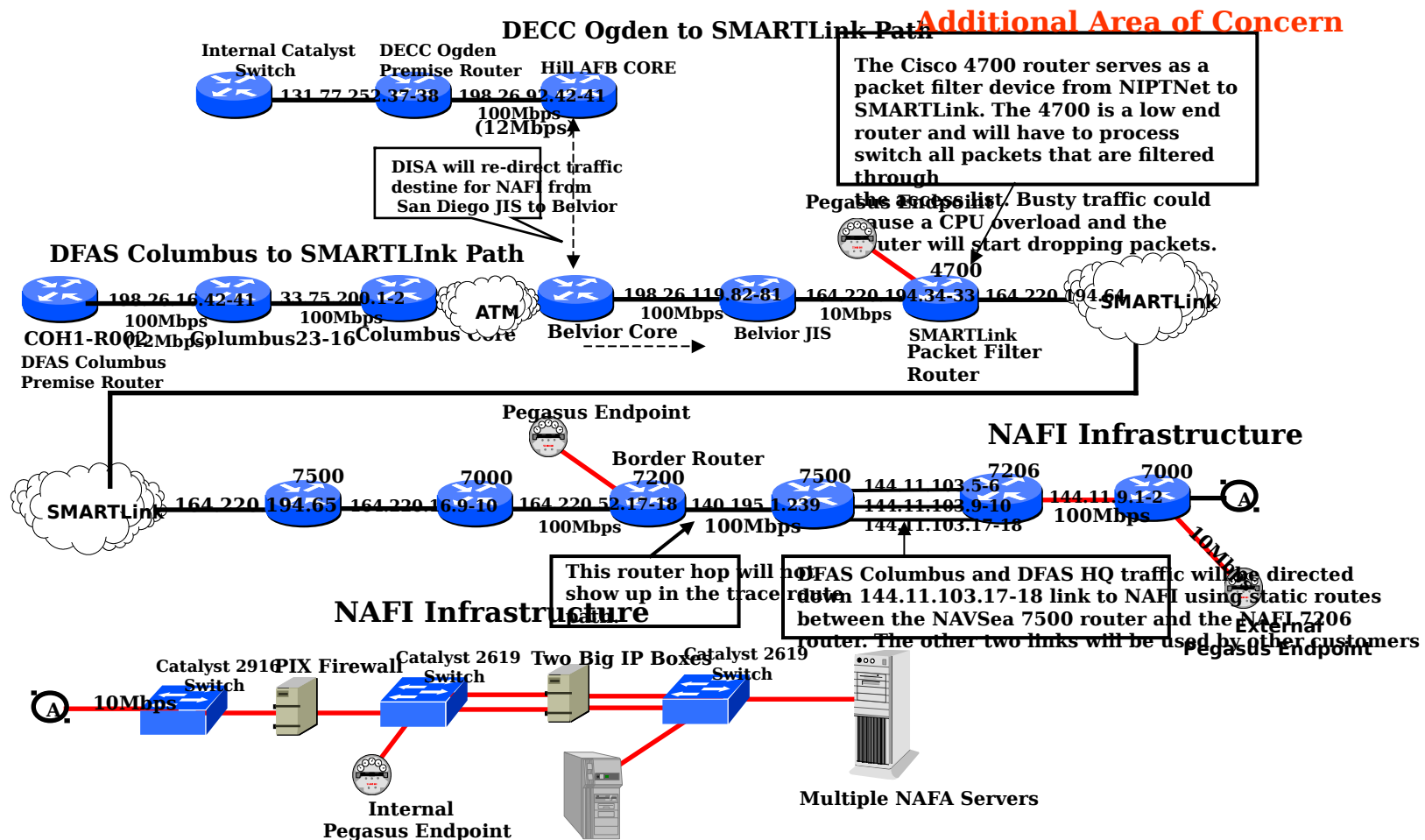 - Continuing to examine NAFI Internally while network monitoring continues

NAFI Architecture
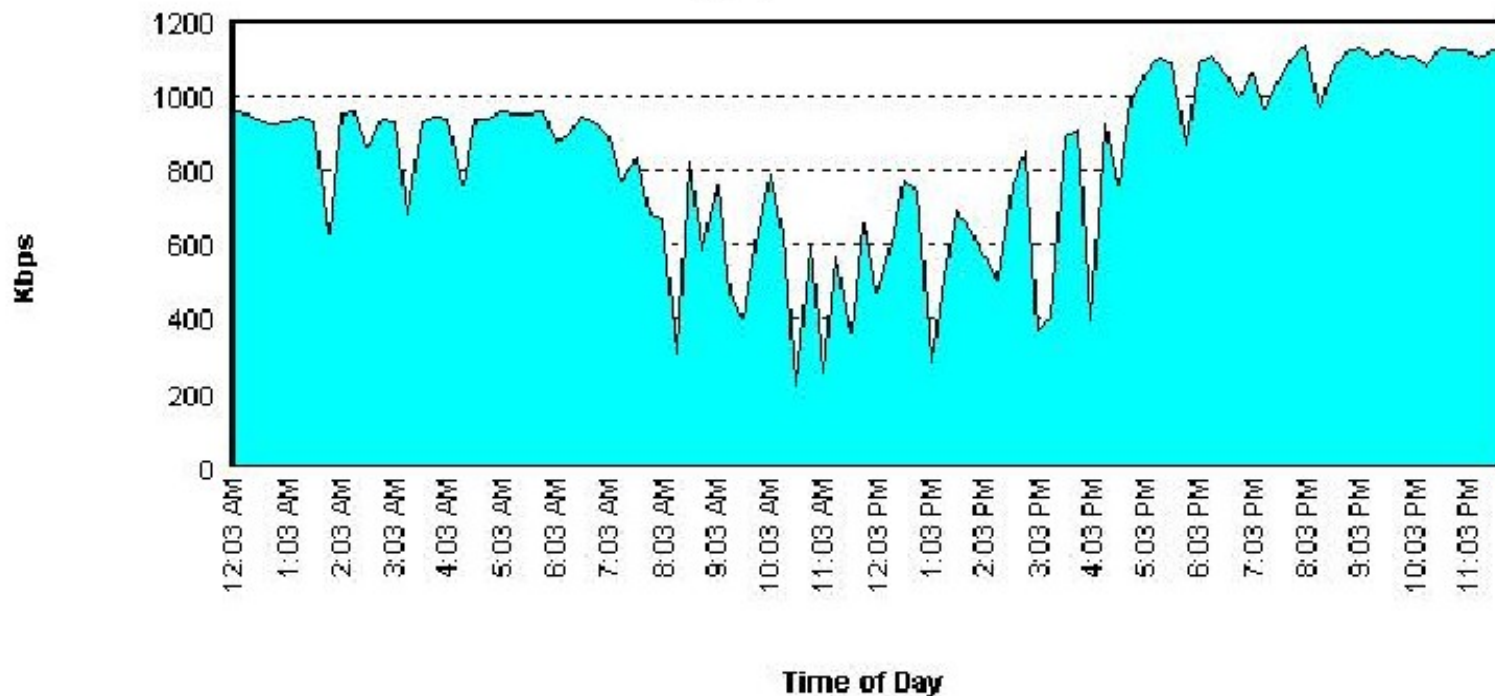
DECC Ogden and DFAS Columbus Path To SMARTlink

EA21
ELECTRONIC ACQUISITION FOR THE 21ST CENTURY
Providing E-Business Solutions for DoN

DECC Ogden to SMARTLink Path

Additional Area of Concern

Internal Catalyst Switch

DECC Ogden Premise Router

Hill AFB CORE

131.77.252.37-38   198.26.92.42-41
100Mbps
(12Mbps)

The Cisco 4700 router serves as a packet filter device from NIPTNet to SMARTLink. The 4700 is a low end router and will have to process switch all packets that are filtered through the access list. Busty traffic could cause a CPU overload and the router will start dropping packets.

DISA will re-direct traffic destine for NAFI from San Diego JIS to Belvior

Pegasus Endpoint

DFAS Columbus to SMARTLInk Path

198.26.16.42-41   33.75.200.1-2   198.26.119.82-81   164.220.194.34-33   164.220.194.64
100Mbps   100Mbps   **ATM**   100Mbps   10Mbps   **SMARTLink**
COH1-R002(12Mbps) **Columbus23-16** **Columbus Core**   **Belvior Core**   **Belvior JIS**   **4700**

DFAS Columbus Premise Router

SMARTLink Packet Filter Router

Pegasus Endpoint

NAFI Infrastructure

Border Router
7500   **7000**   **7200**   **7500**   144.11.103.5-6   **7206**   **7000**
SMARTLink 164.220.194.65 164.220.16.9-10 164.220.52.17-18 140.195.1.239 144.11.103.9-10   144.11.9.1-2
                                                            100Mbps   100Mbps   144.11.103.17-18   100Mbps

This router hop will not show up in the trace route path

DFAS Columbus and DFAS HQ traffic will be directed down 144.11.103.17-18 link to NAFI using static routes between the NAVSea 7500 router and the NAFI 7206 router. The other two links will be used by other customers

External Pegasus Endpoint

NAFI Infrastructure

A. 10Mbps

Catalyst 2916 Switch   **PIX Firewall**   **Catalyst 2619 Switch**   **Two Big IP Boxes**   **Catalyst 2619 Switch**

Internal Pegasus Endpoint

Multiple NAFA Servers

NAFI Throughput

Throughput Details

NAFI Help Desk-Problems

- User frustration is high
- Common complaints include
  - Lack of response to let user know the issue was received
  - Uncertain as to whether all issues are being recorded and tracked
  - Lack of notification when issues are resolved
  - Difficult to talk to a help desk person

NAFI Help Desk-Response

- Help desk resources are limited
- NAFI Helpdesk now issues a Trouble Ticket # for all calls/e-mails that cannot be resolved on the initial contact
- NAFI Help desk responds to all e-mails/calls/voice mails with an e-mail to the user stating the receipt of the user issue and identifying the TT# if the issue was not resolved by user support upon first receipt
- Users can request status of their TT by referencing the TT# to user support or by checking the listing on the web
- Each Friday, a listing of all resolved and unresolved trouble tickets issued or open that week will be posted with the weekly update under User Communication

Current NAFI Resources

- NAFI now in Operations and Maintenance ("O & M") Phase. 2 people on Help Desk replying to calls/e-mails

- No planned NAFI functional releases for future

- Requirements, Design and Development staff has been scaled back

- Focus will now shift to resolving system bugs and system DR's

- SCR's and new functionality will be implemented as time and priorities allow

Recent NAFI Issues

Issue	Synopsis	Resolution
Registration	Users are experiencing intermittent problems registering. This does not happen to all users but it has happened to users in both the Air Force and the NAVY domain using both browsers. After entering all of the information on the account registration page, and clicking on the "Submit" button, the account does not process. The mouse turns into an hourglass and 20 seconds later the screen re appears refreshed with all the data still in the fields as if the submit button was never clicked. The green arrow is blinking next to the user info box also.	This issue is currently being researched.
ASP Script Timeout	Numerous users experience .asp script time out errors. This issue has been occurring since the beginning of Jan. 2001 and users in both domains are experiencing this problem on a regular basis.	Development is using NetMedic to review statistics and reports for speed of network and server packet transfer data, site versus network delay times, page retrieval times, site traffic, CPU and Memory usage, server load and efficiency. Rigorus system and network testing is also being conducted with DFAS, DoD EDA and DISA to determine where these problems are originating.
Viewing Files	Several Issues within file service are producing errors for users when attempting to view contracts. When attempting to open a file, acrobat will launch and open however, the file is blank and the word "done" is found on the bottom left hand corner of the screen. There are files in NAFI are password protected. This does not allow the file to be viewed within NAFI. Users are also receiving "Error 109" message when attempting to open NAFI files.	The blank file issue is believed to be caused by an interaction between Adobe Acrobat and Exploror. This is still being investigated. The "Error 109" that users are receiving is also still being investigate. Password Protected Files are being uploaded to the NAFI site by NAFi users. We are requesting that users DO NOT upload password protected documents as they will be forced to re upload them again so that they are viewable.
Global E mail	The global e-mail functionality is presently not working. It is unable to send e mail to the entire user community or specific larger parts of the user community. The present work around, using outlook distribution lists, is difficult to keep current with the changing user base.	In reviewing the SMTP server email logs and directories, it was found that email for smaller groups are sent successfully. Email to larger groups such as Navy, All, All partially complete but do fail. SMTP server settings were changed to handle the amount of messages (12,000+) but the server is still not processing all of them. New code to process small groups of email at a time is being tested

Current NAFI DR's and SCR's

- System DR
  - Re Create Contract Index
  - Change NAFI Re Set Password
- System SCR's
  - Find Administrator
  - PDF Conversion Enhancement
  - NAFI On-Line Training
  - Miscellaneous Notification
  - NAVSEA EDA Data Migration
  - Manual DFAS Oplocs
  - Manual Award Dates
  - Notification Log Addition
  - DFAS Pay DoDAACS
  - Overview of Paperless "Big Picture" On NAFI
  - E Mail Confirmation Within NAFI
  - Inactivate Document
  - Message Alert for Duplicate Mod

Release 4.0

NAFI Release v4.0

- Release Date – February 2, 2001
- Functionality and Enhancements:
  - Build One: Message Board - allows users to post messages relating to the NAFI application to their respective Activities and Claimants/Major Commands
  - Build Two: Reports – allows users to develop user and activity reports based on their chosen requirements. User Report – allows ability to import Manage Users date to Excel to be queried and sorted on. Contract Report – allows user to get activity information on their organization.
- **Additional Issues Resolved with NAFI v4.0 Release**
  - Send Notification 16 Error
  - E mail sent to Activity Leads after a new user has registered
  - Expanded length of contract number field to hold 19 characters

Miscellaneous Issues

- Uploading .pdf files that are password protected
  - Unable to view in NAFI; DFAS users also can not view
  - Will request users to re-upload without password protection
- Receiving FTP information from sites
  - Sites send information only once, no confirmation back to site with alert that info has/has not reached NAFI
  - After information sent once, automatically archived
- Duplicate files seem to be sent through DEBX—problem and solution are being researched
- SPS SR03 must be implemented to correct duplicate DO numbering problem